

Name(s) of Risk Team Members: P. Cirnigliaro, M. Ceglia, P. Vali				Point Value → Parameter ↓		1		2		3		4		5		
Job Title: Cable Pulling Job Number or Job Identifier: JRA 12-05				Frequency (B)		≤once/year		≤once/month		≤once/week		≤once/shift		>once/shift		
Job Description: Installing new 535 MCM cable into cable tray indoors at RHIC				Severity (C)		First Aid Only		Medical Treatment		Lost Time		Partial Disability		Death or Permanent Disability		
Training and Procedures List (optional):				Likelihood (D)		Extremely Unlikely		Unlikely		Possible		Probable		Multiple		
Approved by: <i>E. Lessard</i> Date: 1-24-05 Rev. #: 0																
Stressors (if applicable, please list all):				Reason for Revision (if applicable):						Comments:						
				Before Additional Controls									After Additional Controls			
Job Step / Task	Hazard	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
LOTO HV Power to Cables in Tray	Electrocution	Work planning, LOTO training	N	2	1	5	2	20								
Pull In or Remove AC or DC Cables	Being struck against an object - cuts and skin abrasions from working in tight spaces	Knee and elbow pads, steel-toe shoes, special mechanic’s glove to allow for better dexterity.	N	5	1	3	3	45								
Pull In or Remove AC or DC Cables	Overexertion – injuries caused by excessive lifting, pushing, pulling, holding, carrying or throwing of an object	Team coordination to share the pulling forces equally, more guys working together leads to less strain. Regular cable pulling team used for this shut down.	N	5	1	3	3	45								
Pull In or Remove AC or DC Cables	Being struck by an object, such as a tool falling on a worker from above	Safety glasses, hard hats	N	5	1	3	3	45								
Pull In or Remove AC or DC Cables	Falls to lower level, such as falling from a ladder or over a railing	Fall protection (railings or scaffolding or tie-offs or man-lifts), OSHA compliant ladders, barricade around work area. Workers hold ladders for coworkers to increased stability as coworkers work pull overhead cable.	N	5	1	3	2	30								

Pull In or Remove AC or DC Cables	Contact with temperature – extremes that result in such injuries as heat exhaustion, frost bite or burns	Fans indoors, water outdoors, tunnel is air conditioned.	N	5	1	2	2	20								
Pull In or Remove AC or DC Cables	Bodily reaction – injuries resulting from bending, climbing, pinch points, loss of balance and slipping without falling	Team coordination to share the pulling forces equally. Keep extremities away from moving cable when possible. Use experienced and trained personnel.	N	5	1	3	3	45								
Pull In or Remove AC or DC Cables	Falls on same level	Shoes with slip resistant soles	N	5	1	2	3	30								
Moving Cable Spools and Pulling Cable Off Spools	Bodily reaction – injuries resulting from bending, climbing, loss of balance and slipping without falling	Use experienced personnel who know how to move a spool with little manual force, bring cable close to work area using lifting equipment, use pulleys and rollers to hold cable off ground during long pull. Use electric carts to pull cable into work areas.	N	5	1	3	3	45								
Connect AC or DC Cables	Cuts from sharp equipment.	Use proper tools to strip insulation. Follow manufactures instructions.	N	2	1	4	2	16								
Connect AC or DC Cables	Becoming caught in or compressed by equipment	Following manufacturer’s instructions for safe use of hydraulic crimper, PPE.	N	2	1	4	2	16								
<p>Further Description of Controls Added to Reduce Risk:</p> <p>A dedicated cable pulling crew was used this shut-down. Experienced people know how to lift cables, work as a team and move cable rolls with relative ease. Refer to CA OPM 1.21 for cable pulling procedure.</p> <p>Breaks are important for the crew since they must often take a few minutes to gather their strength after a difficult pull.</p>																
*Risk:	0 to 20	21 to 40	41-60			61 to 80			81 or greater							
	Negligible	Acceptable	Moderate			Substantial			Intolerable							